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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/685,664	10/14/2003	Emil A. Kneer	LAM2P315A	5635

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EXAMINER

MACARTHUR, SYLVIA

ART UNIT	PAPER NUMBER
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1763

DATE MAILED: 06/29/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

10/685,664

Applicant(s)

KNEER, EMIL A.

Examiner

Sylvia R. MacArthur

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 14 October 2003.
- 2a) ☐ This action is FINAL. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-20 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-20 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 14 October 2003 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☒ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date 10/14/2003.
- 4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____.
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: _____.

DETAILED ACTION

Double Patenting

1. The nonstatutory double patenting rejection is based on a judicially created doctrine grounded in public policy (a policy reflected in the statute) so as to prevent the unjustified or improper timewise extension of the "right to exclude" granted by a patent and to prevent possible harassment by multiple assignees. See *In re Goodman*, 11 F.3d 1046, 29 USPQ2d 2010 (Fed. Cir. 1993); *In re Longi*, 759 F.2d 887, 225 USPQ 645 (Fed. Cir. 1985); *In re Van Ornum*, 686 F.2d 937, 214 USPQ 761 (CCPA 1982); *In re Vogel*, 422 F.2d 438, 164 USPQ 619 (CCPA 1970); and, *In re Thorington*, 418 F.2d 528, 163 USPQ 644 (CCPA 1969).

A timely filed terminal disclaimer in compliance with 37 CFR 1.321(c) may be used to overcome an actual or provisional rejection based on a nonstatutory double patenting ground provided the conflicting application or patent is shown to be commonly owned with this application. See 37 CFR 1.130(b).

Effective January 1, 1994, a registered attorney or agent of record may sign a terminal disclaimer. A terminal disclaimer signed by the assignee must fully comply with 37 CFR 3.73(b).

2. Claims 1-20 are rejected under the judicially created doctrine of obviousness-type double patenting as being unpatentable over claims 1-19 of U.S. Patent No. 6,652,708. Although the conflicting claims are not identical, they are not patentably distinct from each other because the claims of the present invention are broader. Specifically, the present invention claims a broad polishing surface while the patent claims a linear belt with rollers. The narrow claims of the

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patent anticipate the broad claims of the present invention. Furthermore, the present invention encompasses the claims of the patent.

Claim Rejections - 35 USC § 102

2. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

3. Claims 1 and 3-5 are rejected under 35 U.S.C. 102(b) as being anticipated by Chiou et al (US 5,873,769).

Regarding claim 1: Chiou et al teaches a CMP system with a processing surface temperature controller comprising an array of thermal elements (circular heating elements 60), col. 6 lines 22-52 teaches that these elements are independently controlled, The thermal elements are placed in a platen (processing surface) and are positioned to contact a back surface of the processing surface.

Regarding claim 3: The platen includes a plurality of processing zones wherein each of the heating elements corresponds to a processing zone, the heating elements are independently controlled to manipulate the surface temperature of the processing zone corresponding to the heating element, see col.6 lines 22-52.

Regarding claim 4: Heat is the thermal energy applied to the processing zone to raise the surface temperature of the processing zone.

Regarding claim 5: The thermal energy in the platen from independent sources 52 is configured to cool the surface temperature of the processing zone.

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

4. Claims 12, 16 and 20 are rejected under 35 U.S.C. 102(e) as being anticipated by Gotkis et al (US 6,579,157).

Regarding claim 16: Gotkis et al teaches a polishing pad ironing system having an outer and inner surface. A method is taught for conditioning the outer processing surface. A plurality of independent conditioning elements (522 & 530) are distributed along the linear path, see Fig. 5A.

Regarding claim 20: The CMP system is a linear belt CMP processing system.

5. Claims 1-11 are rejected under 35 U.S.C. 102(e) as being anticipated by Carpenter et al (US 6,763,686).

Regarding claims 1 and 7: Carpenter et al teaches a method and apparatus of processing a continuous substrate. An array of thermal elements are provided coolers 130 and heater 102. The array of thermal elements (units) are positioned to contact a back surface of the processing surface.

Regarding claims 2, 6, and 8: The heater contains an array of heaters 112 which are controlled by a system controller 114.

Regarding claims 3 and 9: The processing surface includes a plurality of processing zones, wherein each of the thermal elements corresponds to a processing zone. The

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thermal elements of the array are independently controlled according to col. 4 lines 48-50.

Regarding claims 4 and 10: The heater and its cartridges heaters contained within raise the temperature of the processing zone.

Regarding claims 5 and 11: The coolers are configured to lower the surface temperature of the processing zone.

Claim Rejections - 35 USC § 103

6. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

7. Claims 13, 15, 17, and 18 are rejected under 35 U.S.C. 103(a) as being unpatentable over Gotkis et al in view of Carpenter et al (US 6, 763,686).

The teachings of Gotkis et al were discussed above.

Regarding claims 13 and 17: Gotkis et al fails to teach an array of spray nozzles.

The teachings of Carpenter et al were discussed above. Carpenter et al teaches an array of spray nozzles 108, see Fig.1 Because these nozzles are separated from one another they are inherently independently controlled. The motivation to provide the apparatus of Gotkis et al with an array of nozzles is to provide process fluid along the length of the substrate which decreases processing time and yield a more uniform flow of process fluid to the substrate. Thus, it would have been obvious for one of ordinary skill in the art at

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the time of the claimed invention to provide an array of spray nozzles that are independently controlled as taught by Carpenter et al in the apparatus of Gotkis et al.

Regarding claim 15: The pressure applied against the preparation surface is an optimizable parameter. The apparatus of Gotkis is obvious able to accommodate this pressure to ensure the surface is uniformly conditioned. Thus, it would have been obvious for one of ordinary skill in the art at the time of the claimed invention to provide a pressure as recited in claim 15 to condition the preparation surface to the desirable topography.

Regarding claim 18: Gotkis et al teaches brushes 732.

Conclusion

8. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Sylvia R. MacArthur whose telephone number is 571-272-1438. The examiner can normally be reached on M-F during the core hours of 9 a.m. and 3 p.m.

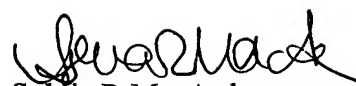
If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Parviz Hassanzadeh can be reached on 571-272-1435. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

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A handwritten signature in black ink, appearing to read 'Sylvia R. MacArthur', with a stylized, cursive script.

Sylvia R MacArthur

Patent Examiner

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June 22, 2005